UNITED NATIONS

UNFCCC Framework Convention on Climate Change

Distr.
GENERAL

FCCC/CP/2001/10
17 October 2001

Original: ENGLISH

CONFERENCE OF THE PARTIES
Seventh session
Marrakesh, 29 October – 9 November 2001
Item 4 of the provisional agenda

INPUT TO THE WORLD SUMMIT ON SUSTAINABLE DEVELOPMENT

Note by the secretariat

I. INTRODUCTION

A. Mandate

1. The General Assembly, by its resolution 55/443 of 20 December 2000, invited the Conference of the Parties (COP) at its seventh session to contribute to the preparation of the ten-year review of the implementation of Agenda 21 and the Programme for the further implementation of Agenda 21. This contribution is to be considered by the Preparatory Committee for the World Summit on Sustainable Development (WSSD) scheduled to meet in January 2002.

2. The Subsidiary Body for Implementation (SBI), at its twelfth session, requested the secretariat to prepare elements, for consideration at its fourteenth session, with a view to its recommending a draft decision for adoption at COP 7 (FCCC/SBI/2000/5, para. 43 (h)). The SBI, at its fourteenth session, agreed to postpone consideration of these elements to its fifteenth session (FCCC/SBI/2001/9, para. 3).

B. Scope of the note

3. This note addresses the following questions that the COP may wish to address in formulating its contributions to the preparation for the WSSD:

(a) Linkages between climate change and sustainable development: institutional arrangements;

(b) Evolution of scientific and technological knowledge on climate change;

(c) Experience gained in the implementation of the Convention;

(d) Implementation of the Buenos Aires Plan of Action; and

(e) Examination of the obligations in the light of the objective of the Convention

4. The elements below may assist the COP in addressing these questions.

C. Possible action by the Conference of theParties

5. Following a discussion in the Bureau of COP 6, it is proposed that this item be taken up in the plenary of the COP. The COP may wish to consider the elements contained in this note to prepare its input to the World Summit on Sustainable Development. As the input is to be made to the Preparatory Committee for the WSSD, scheduled to be held in January 2002, action is requested by COP 7. The COP will be informed at its eighth session on the action taken.

II. ELEMENTS

6. These elements draw upon the Third Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), the compilations and syntheses of national communications by Parties included in Annex I and Parties not included in Annex I to the Convention, and documents prepared for, and relevant decisions of, the COP and its subsidiary bodies.

A. Climate Change and sustainable development: institutional arrangements

7. The Framework Convention on Climate Change was opened for signature at the United Nations Conference on Environment and Development in 1992. The Convention has achieved near universal membership, having received 186 instruments of ratification, as at October 2001. The Convention establishes institutions and processes for promoting scientific understanding, international cooperation and national action. The Conference of the Parties to the Convention has taken various decisions relating to information and analysis, the development of methodologies and guidelines on reporting, technical and financial cooperation and review of implementation. The secretariat, guided by the Parties, supports decision-making by developing and disseminating information, undertakes analyses, and organizes workshops which inform the proceedings at the inter governmental level. The secretariat is emerging as a centre for data on greenhouse gas emissions.

8. Promotion of policy coherence with other conventions related to sustainable development is progressing. For example, a joint liaison group is being formed with the Convention on

Biological Diversity and the United Nations Convention to Combat Desertification to assess linkages across conventions and to promote cooperation and coherence. The IPCC and the Montreal Protocol on Substances that Deplete the Ozone Layer are addressing ways and means to limit emissions of hydrofluorocarbons and perfluorocarbons which have high global warming potential and are used as replacements for ozone-depleting substances. The IPCC is preparing a technical paper on the linkages between climate change, biodiversity and desertification.

9. Climate change is one of the major sustainable development challenges of the twenty-first century. Its adverse effects could lead to changes on the operation of socio-economic systems, human health and welfare, affecting efforts for the eradication of poverty. Responses to climate change need to be coordinated with social and economic development in an integrated manner. The Convention makes several references to sustainable development in the Preamble. For example, it states that responses to climate change should be coordinated with social and economic development in an integrated manner with a view to avoiding adverse impacts on the latter. It also states that full account should be taken of the legitimate priority needs of developing countries for the achievement of sustained economic growth and the eradication of poverty. The Convention, in Article 3, has as a principle that Parties have a right to, and should, promote sustainable development. The Kyoto Protocol, in Article 2, stipulates that policies and measures for achieving quantified emission limitation and reduction commitments should promote sustainable development.

10. Agenda 21, in chapter 9 on Protection of the Atmosphere, has identified energy development, efficiency and consumption; transportation; industrial development; and terrestrial and marine resource development and land use as programme areas for promoting sustainable development. Agenda 21 also describes measures to protect the atmosphere as a broad and multi-dimensional endeavour involving various sectors of economic activity, and progress is reviewed by the Commission on Sustainable Development.

11. The General Assembly regularly considers information on the work of the Conference of the Parties under an item on protection of the global climate. The General Assembly also considers measures for enhancing complementarities among international instruments related to the environment and sustainable development. The Convention, and its related Protocol, support the international commitment for the achievement of sustainable development.

B. Evolution of scientific and technological knowledge of climate change

12. Three assessment reports of the Intergovernmental Panel on Climate Change have provided a scientific basis for, and supported the development of, a global strategy for addressing climate change and its adverse effects. The Third Assessment Report (published in 2001), has projected that carbon dioxide concentrations and surface temperatures will increase globally, and asserted that the earth's climate system had changed, globally and regionally, with most of the warming observed over the last 50 years attributable to human activities.

13. Impacts of global warming include an accelerated rise in sea levels, increased frequency and severity of extreme weather events, changes in patterns and levels of precipitation, the drying of arid and semi-arid areas from decreased precipitation, and the spread of vector borne diseases. Biological systems have already been affected in many parts of the world by changes in climate, particularly increases in regional temperature. Climate change has had adverse effects on forests, agricultural productivity, water resources, human settlements, health and ecosystems. The impacts are expected to be greatest in the high latitudes of the Northern Hemisphere and in developing countries in terms of loss of life and relative effects on investment and on economies.

14. The IPCC has also assessed available information on the timing, opportunities, costs, benefits, and impacts of various mitigation and adaptation options. For example, significant progress relevant to the potential for greenhouse gas emission reductions has been made and has been faster than anticipated in earlier reports of the IPCC. Technological options which can be implemented at "negative cost", that is, which are economically beneficial, are available for emission reduction and limitation. Lower emission scenarios will require different patterns of energy resource development. The choice of energy mix and associated investment will determine at what level and cost greenhouse gas concentrations can be stabilized. The capacity of countries to adapt and mitigate can be enhanced when climate policies are integrated with national sectoral policies. The climate change issue is a part of the larger challenge of sustainable development.

C. Experience gained in the implementation of the Convention

The Convention provides for national action and international cooperation. The main source of information related to implementation are the national communications.

National communications

15. By October 2001, thirty-three industrialized countries that are Parties (Annex I Parties) had submitted their second national communications; the third national communications are to be submitted by 30 November 2001. For these countries, in-depth review reports provide an assessment of information reported by Parties relating to greenhouse gas inventories, projections, policies and measures, national circumstances and other issues. Annual greenhouse gas inventories supplement the national communications. The technical review of these inventories on an annual basis began in 2000.

16. By October 2001, fifty-eight developing country Parties (non-Annex I Parties) had submitted their initial national communications, while one developing country Party had submitted its second national communication. To improve national communications from developing countries, a Consultative Group of Experts (CGE) has been established to review existing activities and to facilitate and support the preparation of national communications.

17. Most countries have begun to include research into the socio-economic impacts of climate change in their national programmes. While some, particularly in the temperate latitudes, have reported positive impacts in agriculture, overall the impact of climate change is expected to be mixed, and to be largely negative in tropical, coastal and mountain areas. Adaptation measures are considered important in the agriculture sector, focusing on research into new crops; changed methods of cultivation are also being considered to address the risks. Countries are cooperating in activities to strengthen global climate observing systems to better monitor changes in climate. The role played by education, training and awareness is being stressed in the national communications.

Developing Countries

18. Developing countries are expanding their electric power and industry infrastructures, and this provides opportunities for improving energy intensities. Some developing countries have made significant strides in improving the energy intensity of their economies, i.e. have increased economic output while limiting increases in emissions of greenhouse gases.

19. The communications from developing countries reflect their widely differing national circumstances and emphasize linkages between the adverse effects of climate change concerns and economic development. The dominant theme is the need for better quality data, improved information and scientific research, financial resources and technical expertise, improved technologies, and institutional development. For some developing countries, in particular the least developed countries, the percentage of the population living in absolute poverty remains high. Consequently, livelihood concerns of maintaining natural ecosystems, building water supply systems, increasing food production and diversifying their economies is the important development priority objective. Least developed countries, in particular small island developing States and countries with low-lying coastal areas, are seeking to involve local communities in order to tap indigenous knowledge and local technologies in developing coping strategies. Sustainable development and the integration of climate change concerns into planning are being considered in most developing countries, in line with long-term goals such as production of more food, energy security, improvements in the quality of water and standards of health, coping with natural disasters and insurance-related actions, protection of coral reefs, and combating desertification.

20. The Conference of the Parties in reviewing the implementation of the Convention by developing countries, in 2000, concluded that the Parties which have submitted their national communications are taking measures to address climate change and its adverse impacts.[1]

Industrialized countries

21. The policies and measures adopted by industrialized countries have been motivated primarily by economic efficiency, with the underlying aim of reducing greenhouse gas emissions, focusing on the restructuring of energy sectors, promoting energy efficiency and improvements in the efficiency of transport systems. The measures include energy market liberalization, increased

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[1] FCCC/CP/2000/5/Add.2, decision 3/CP.6

efficiency in energy production and conversion; fuel switching from coal and heavy fuel oil to natural gas; research and development in, and a shift to, renewable energy; increased energy end-use efficiency; technical improvements in lighting, appliances and equipment; improved vehicle fuel economy; and preservation of and an increase in carbon sinks in forests. Activities are under way to promote the exchange of information on planned and implemented policies and measures.

22. For industrialized countries the spectrum of policies and measures being implemented is diverse and includes a range of economic instruments – particularly taxes, regulations, research and development and voluntary programmes. Because of differences in national circumstances, the approaches to designing and implementing policies, even when they are similar, varies from one country to another. The cost-effectiveness of policies and measures is considered to be very important, including, *inter alia*, benefits across different sectors, and benefits to the environment other than climate change mitigation. Significantly, industries are taking the initiative to reduce their own emissions through voluntary agreements. Many countries are designing new climate-driven policies largely using market-type instruments, such as taxes and emissions trading as part of the national policy package.

23. The Conference of the Parties in reviewing the implementation of the Convention by industrialized countries, in 1998, concluded that greenhouse gas emissions from countries with economies in transition have declined while industrialized countries as a whole exhibited growing aggregate greenhouse gas emissions. Industrialized countries are fulfilling their commitments to implement national policies and measures to mitigate climate change but, according to available information, many industrialized countries would not have fulfilled the aim of returning individually their greenhouse gas emissions to 1990 levels by the year 2000[2]. Total emissions of greenhouse gases for industrialized countries in the year 2000 are likely to be close to 1990 levels.[3]

24. Industrialized countries are to take the lead in modifying longer term trends in anthropogenic emissions consistent with the objective of the Convention. Their aggregate emissions of greenhouse gases are projected to be approximately 6 per cent above 1990 levels by the year 2010. Greenhouse gas emissions from economies in transition have declined by 38 per cent by the year 1999 and are projected to be about 29 per cent below 1990 levels in the year 2010. Other industrialized countries have exhibited growing greenhouse gas emissions, with an increase of 7 per cent from 1990 to 1999; their emissions are projected to be 21 per cent above 1990 levels in the year 2010.[4]

25. Negotiations on a framework for emission limitation and reduction objectives began in 1995, and led to the adoption of the Kyoto Protocol in 1997. The Kyoto Protocol is a system for establishing quantified emission limitation or reduction commitments, as well as targets for an initial five-year period. It sets out for the first time greenhouse gas reduction targets for industrialized countries, for a six-gas basket, with an overall effect of at least five per cent for the period 2008 to 2012 as compared to 1990 levels; provides for the possibility of accounting for

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[2] FCCC/CP/1998 decision 11/CP.4.

[3] FCCC/TP/2001/1.

[4] FCCC/TP/2001/1. In 1999, aggregate greenhouse gas emissions (for the basket of six gases) were 4 per cent below for the European Union, 11 per cent above for Japan, and 12 per cent above 1990 levels for the USA.

the sequestration of carbon by sinks, and introduces innovative international market-based mechanisms to help achieve these targets, broadening the range of policy options. These include emissions trading, and two mechanisms aiming to promote investment in emission avoidance in economies in transition and developing countries. The latter, the clean development mechanism, targets sustainable development in developing countries.

D. Implementation of the Buenos Aires Plan of Action

26. The Buenos Aires Plan of Action, agreed in 1995, consists of elements to strengthen international cooperation for implementation of the Convention and modalities for implementation of the Kyoto Protocol. The core elements of the Buenos Aires Plan of Action were agreed by Ministers at the sixth session of the Conference of the Parties in July 2001. On the basis of that political agreement, draft decisions on elements to strengthen implementation of the Convention and the Protocol were agreed and forwarded for adoption at the seventh session of the Conference of the Parties.

27. important in forging an effective global response to climate change is the provision of financial resources and the transfer of technology to support measures taken by developing countries in complying with their commitments. The operating entity of the financial mechanism of the Convention, the Global Environment Facility (GEF), and several other agencies and bilateral programmes, are providing such assistance. Industrialized countries are providing bilateral contributions and contributing to the GEF.

28. The need for more funding to assist developing countries in addressing climate change has been recognized. Two new funds are to be established, managed by the GEF: a special climate change fund to finance adaptation, transfer of technologies, emission reductions, and assistance to developing countries in diversifying their economies, and the least developed countries fund to support least developed countries in implementing the Convention, and in particular to address their adaptation needs. One new fund is to be established under the Kyoto Protocol, the adaptation fund, (also managed by the GEF) to finance adaptation projects programmes, financed from a share of proceeds of the clean development mechanism (two per cent of certified emission reductions) and from other funding.

29. Activities related to adaptation to the adverse effects of climate change are to be supported through the GEF, the special climate fund and the adaptation fund. These include activities in support of methodological work as well as of adaptation projects. Industrialized countries have resolved to prevent or minimize adverse impacts of mitigation measures on developing countries. Support will be provided, through the GEF and the special climate fund, to help developing countries address any negative economic impacts arising from the implementation of mitigation measures by industrialized countries.

30. A framework for meaningful and effective action to increase and improve the transfer of and access to environmentally sound technologies and know-how has been developed. This framework includes activities relating to technology needs assessments, technology information, enabling environments, capacity-building and mechanisms for technology transfer. An expert group on technology transfer has been established to identify ways to facilitate and advance the technology transfer activities identified in the framework.

31. A framework for capacity building in developing countries, in particular the least developed countries and small island developing States among them, has also been agreed to assist in promoting sustainable development while pursuing the objective of the Convention. Within this framework, the emphasis of developing countries is on assistance in collecting data and developing modelling skills to assess the potential effects of climate change on sectors such as agriculture, water resources, coastal zones, fisheries, human health and natural ecosystems. The emphasis of economies in transition is on developing national systems for the estimation of greenhouse gas emissions. Both developing countries and economies in transition have stressed the need to develop institutions for research, monitoring and environmental management.

32. The draft decisions for the Kyoto Protocol mechanisms, land use, land-use change and forestry and the compliance mechanism, are not yet complete. They have been forwarded to the seventh session of the Conference of the Parties, to be held in Marrakesh from 29 October to 9 November 2001, for completion and adoption. The draft decisions outline a workable set of rules for all three mechanisms under the Kyoto Protocol. There is agreement on principles as a guide for land use, land-use change and forestry activities, with limits for the controlled use of sinks to meet initial targets, and that credible and transparent accounting systems would be established. Parties have agreed to establish a Compliance Committee, with a facilitative branch and an enforcement branch. The approach to compliance is to emphasize the facilitation and promotion of compliance. Consequences of non-compliance with emission targets have been defined.

33. Agreement on these draft decisions will establish rules for implementing the Kyoto Protocol. This is expected to lead to ratification by a majority of industrialized countries. The Protocol has been ratified by 40 States (as at October 2001, including one industrialized country), and is to enter into force after ratification by 55 Parties to the Convention, incorporating industrialized countries accounting for 55 per cent of the total carbon dioxide emissions of industrialized country Parties for the year 1990. The United States of America has stated that it will not ratify the Kyoto Protocol and is developing a new approach to provide a long-term solution that it considers environmentally effective, economically sustainable and fair.

E. Examination of the obligations in the light of the Convention

34. The ultimate objective of the Convention, in Article 2, is the stabilization of greenhouse gas concentrations in the atmosphere at a level which would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.

35. The Convention establishes a global regime, which engages all countries over time in action to limit all significant sources of greenhouse gas emissions, on the basis of the principle of common but differentiated responsibilities and respective capabilities. In modifying longer-term trends, emissions from industrialized countries need to fall substantially, while in developing countries growth in emissions needs to be slowed in relation to growth in their gross domestic product. Together these trends would slow the rate of growth in atmospheric concentrations. The options for determining the level and timing of emissions reductions and limitations include

international agreement on emissions and/or concentration levels and on how the effort will be equitably shared, programmes for technological development, national policies to affect the energy mix and associated investments, market-based and regulatory policy instruments, and voluntary action.

36. The Conference of the Parties is to periodically examine the obligations of the Parties, in accordance with Article 7.2(a). It is also to review the adequacy of Article 4.2(a) and (b) of the Convention but has until now been unable to agree on how to address the second review. It may be noted that the Kyoto Protocol to the Convention requires each Party included in Annex I to have made, by 2005, demonstrable progress in achieving its commitments under the Protocol. The Protocol also requires that consideration of commitments for subsequent periods for Parties included in Annex I shall begin at the latest in 2005. The Conference of the Parties serving as the meeting of the Parties to the Protocol is to periodically review the Protocol (Article 9), with the first review taking place at its second session.

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